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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,917	07/20/2000	Toshio Nomura	49982(551)	3874

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EXAMINER

WU, DOROTHY

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 06/07/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/619,917

Applicant(s)

NOMURA ET AL.

Examiner

Dorothy Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

Response to Arguments

2. Applicant's arguments with regard to the drawings are persuasive. The objection to the drawings has been withdrawn.
3. Applicant's arguments filed March 8, 2004 have been fully considered but they are not persuasive.

The applicant has argued: "Auty is directed to detecting the movement of large vehicles such as trucks on a highway, identifying the vehicle, and obtaining information related to the travel of the vehicle between monitoring points. Auty does not teach or suggest to update the background of a first image using the background image of a second image." The office respectfully disagrees. Concerning the obtaining of information related to the vehicles, Auty is directed to subtracting a background image from a current image to produce a preliminary difference image, which contains only the object (col. 9, lines 24-29; Figs. 11 and 12). Auty further teaches that a background image representing the static background viewed by a detection camera is stored and continually updated (col. 9, lines 35-43), which reads on the

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updating of the first image by using an image of a region other than the object region every time a prescribed period is elapsed.

The applicant has argued: "Parulski does not teach or suggest to pick up a moving image." The office respectfully disagrees. Parulski teaches that the technique may be applied to a moving subject (col. 5, lines 1-5).

The applicant has argued: "Auty fails to teach or suggest to actively pick up an image including only a background as in the present invention." The office respectfully disagrees. Auty teaches that a background image representing the static background viewed by a detection camera is stored and continually updated, which reads on the active pick up of an image including only a background (col. 9, lines 35-43).

The applicant has argued: "Autry fails to teach or suggest a timing of the storage of an initial image." The office respectfully disagrees. Auty teaches that an image is captured based upon the estimated time the vehicle will enter the field of view of the acquisition camera, which reads on the timing of the storage of an initial image (col. 4, line 58-col. 5, 13).

The applicant has argued: "In Auty, allowing a camera to continually pick up an image would provide an image of only background. In contrast, in the present invention, failure to pick up an image of a person, or the like, would not provide an image of background alone." The office respectfully disagrees.

In response to the Applicant's request for a reference in support of Official Notice relative to claim 7, Arigato, U.S. Patent 6,721,014, teaches a sound source 126 that makes a sound to indicate that the image sensing operation is completed (col. 7, line 65-col. 8, line 3), thereby informing the user of completion of an imaging operation.

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In response to the Applicant's request for a reference in support of Official Notice relative to claims 8 and 9, Florencio, U.S. Patent 6,549,577, teaches that memory and memory bandwidth requirements are reduced by compressing image information prior to storage (col. 9, line 66-col. 10, line 4). Therefore, it is well known to minimize data storage requirements via compression.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 6-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (U.S. Patent 5, 914, 748) in view of Auty et al. (U.S. Patent 5, 809, 161).

Regarding claim 1, Parulski discloses an image pickup apparatus taking a first image including only a background but not an object (Figure I items 18 and 20) and a second image including the object (Figure I items 12', 12, and 14), and having a shutter button pressed for releasing a shutter (Figure 4b item 96, Column 4 lines 51 - 67), comprising:

- a time measuring portion measuring a time after said shutter button is pressed (Inherent, Column 4 lines 51 - 67); and
- an output selecting portion outputting an image taken when a first period of time is measured by said time measuring portion as one of said first and second images, and outputting an image taken when a second period of time is further measured by said time

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measuring portion after the first period of time as the other of said first and second images (Column 4 lines 51 - 67, subject and background output from the CCD after 10 seconds followed by background output after another 10 seconds).

Parulski fails to disclose the image pickup apparatus wherein:

- said first image is updated by using an image of a region other than the object region of said second image every time a prescribed period is elapsed.

Auty teaches:

- a background image representing the static background viewed by a detection camera is stored and continually updated (col. 9, lines 35-43), and
- Updating the background image is essential in correctly obtaining the object from the background due to environmental changes which occur after the initial background image is obtained, and that such updates happen at a predetermined time (Column 9 line 16 - Column I I line 55).

Such an arrangement would allow the background insertion apparatus of Parulski to correctly identify the subject even in a slowly changing background environment.

Therefore, it would have been obvious to one of ordinary skill in the art to include the image pickup apparatus wherein the first image is updated by using an image of a region other than the object region of said second image every time a prescribed period is elapsed.

Regarding Claim 2, Parulski discloses the image pickup apparatus according to claim 1, further comprising:

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- a region extracting portion using said first and second images for outputting information of an object region of said second image (Column 4 lines 59 - 65, Figure I items 22 and 24); and
- a recording portion recording data of positional information of said object region, and one of data representing said second image data and image data included in said object region onto a recording medium (Column 4 lines 59 - 65).

Regarding Claim 3, Parulski discloses the image pickup apparatus according to claim 1, further comprising:

- a region extracting portion using said first and second images for outputting positional information of an object region of said second image (Column 4 lines 59 - 65, Figure I items 22 and 24);
- an image composing portion replacing an image in a region other than said object region of said second image with a prepared background image (Figure I items 26, 28, 30 and 32); and
- a recording portion recording data of the image composed by said image composing portion onto a recording medium (Figure I items 32 and 26, Column 3 lines 20 - 22, wherein the data is recorded in memory before being output to the display or the printer. Furthermore, it would be obvious to record the composite image to a storage medium, such as a hard drive, floppy disk or cd, for later use).

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Regarding Claim 6, Parulski discloses the image pickup apparatus according to claim 1, further comprising:

- a recording portion recording the data of said first image and second image onto a recording medium (Column 4 lines 55 - 58).

Regarding Claim 7, Parulski in view of Auty fail to specifically disclose the image pickup apparatus according to claim 1, further comprising:

- a notifying portion notifying a timing at which pickup of said first image is finished and a timing at which pickup of said second image is started.

Official Notice:

It is well known in the art to include a notifying portion the notifying the timing of a picture-taking event, such as a red-flashing LED or a buzzer. Furthermore, it would have been obvious to one of ordinary skill in the art to include the notifying portion notifying a timing at which pickup of said first image is finished and a timing at which pickup of said second image is started so as to alert the user to the timing of the end of the first exposure and the beginning of the second exposure(s) further allowing the user the chance to place the subject within the field of view of the image taking apparatus so as to correctly obtain the combination of a first image with just a background and a second image with a background and a subject.

Regarding Claim 8, Parulski in view of Auty fail to specifically disclose that the recording portion records said data in a compressed form.

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It is well known in the art to record images, or portions of images, in a compressed form so as to allow for more efficient use of space or transmission in a recording medium.

Therefore, it would have been obvious to one of ordinary skill in the art to include the recording portion which records data in a compressed form so as to allow for a more efficient use of space within the recording medium.

Regarding claim 9, see examiner's comments for claim 8.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Wu whose telephone number is 703-305-8412. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DW

May 26, 2004



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